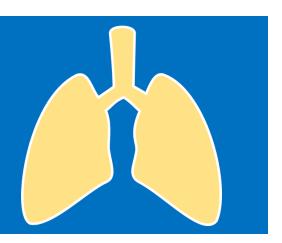
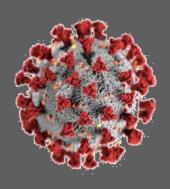
The DOT: Discussions on Tuberculosis

The Kentucky Tuberculosis Prevention and Control Program's Newsletter



Summer Edition | July 2020

Special Edition



COVID-19 Pandemic: What Does it Mean for TB?

In this Issue

Controller's Message	P. 1
Nurse Consultant Column	P. 2
COVID-19 and Tuberculosis	P. 4
Epidemiology Editorial	P. 8
Upcoming Training Opportunities	P. 10

SUBMISSIONS

If you would like to suggest a topic or submit an event, article, or picture to feature in a upcoming edition of this newsletter, please email Charlie Rhea at: charles.rhea@ky.gov, or Heather Cox at heather.cox@ky.gov.

Controller's Message

World TB Day is observed annually on March 24th to commemorate Dr. Robert Koch's announcement of his discovery of *Mycobacterium tuberculosis*, the bacillus that causes tuberculosis (TB).



This year as the annual celebration drew near, the Kentucky TB Program (KTP) recognized that we, along with our communities and many of our colleagues, are occupied with the public health response to COVID-19; therefore we felt it best that *World TB Day* would not have the usual fanfare and activities that we annually generate to raise awareness.

We want to give a special thank you to all of you for your continued hard work and dedication towards not only your efforts during the extremely challenging COVID-19 response, but also in helping maintain the Centers for Disease Control and Prevention and the KTP's commitment to:

- Test and treat latent TB infection;
- Strengthen TB education and awareness among healthcare providers;
- Find, cure, and prevent all forms of TB in the United States and around the world; and
- Speak up, end stigma, and end TB.

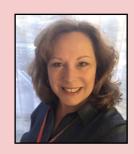
As we all adjust to the "new normal" in our daily life and work schedules, we hope that you find the time to take a mental health break by relaxing, enjoying

outdoor activities (while still maintaining social distancing), and perhaps catch up on some reading, including our updates in this newsletter.



Remember, as Andy says, "We're gonna get through this, together!"

Emily Anderson, RN, BSN
TB Controller/Program Manager
EmilyA.Anderson@ky.gov



Nurse Consultant Column

Tuberculosis Testing in Healthcare Workers During the COVID-19 Pandemic

In 2016, the Kentucky TB Program updated our tuberculosis (TB) testing for healthcare workers regulation (902 KAR 20:205) based on the updated guidelines released by the Centers for Disease Control and Prevention (CDC) and the National Tuberculosis Controllers Association (NTCA).

Upon their release in the spring of 2019, we reviewed <u>902 KAR 20:205</u> and determined that there would be <u>no changes</u> to our existing regulation, as these provisions for healthcare agencies to identify employees of highest risk for transmission of TB had already been added in Section 2 as follows:

- Section 2(4), "A TB infection control plan shall include a listing of the job series of healthcare workers or another standardized method to describe which healthcare workers shall be included in the facility TB screening program."
- Section 2(5)(a-e) provides detailed guidance for healthcare settings in determining those employees at greatest risk.

Additionally, Sections 4 & 5 detail guidance for <u>initial</u> and/or <u>annual</u> screening (individual risk assessment with symptoms screen) and testing (tuberculin skin test (TST) or blood assay for mycobacterium TB (BAMT)) of newly hired and/or established employees.

Since 2016, we are proud that our regulation and awareness campaign (i.e. implementation toolkit) has been shared nationally to serve as a model towards implementing the workgroup's recommendations in other states across the country.

Do we need to keep testing for TB during the COVID-19 response?

Recently, the Kentucky TB Program has received many questions on the need to continue testing healthcare workers for TB during the COVID-19 pandemic. At this time, <u>no changes</u> or <u>exceptions</u> have been made to <u>902 KAR 20:205</u> due to the COVID-19 pandemic. All testing *must continue* as scheduled and needed.

It is imperative that this testing continue, as many patients who are seeking medical care at this time are older individuals or those with immunocompromising conditions who may be infected with COVID-19. These are the same populations at increased risk for developing active TB disease. Therefore, it is important to protect these individuals by ensuring that all appropriate healthcare personnel are tested according to the aforementioned guidelines and regulation.

Remember!

When testing *anyone* for tuberculosis, a risk assessment should be conducted in addition to the test itself.

^{1.} https://www.cdc.gov/mmwr/volumes/68/wr/mm6819a3.htm?s cid=mm6819a3 w

^{2.} https://www.cdc.gov/mmwr/preview/mmwrhtml/rr5417a1.htm?s cid=rr5417a1 e

Nurse Consultant Column

Rifapentine Shortage and Impurity Announcements

In late 2019, state and local TB prevention and control programs alerted the National Tuberculosis Controllers Association (NTCA) and the Centers for Disease Control and Prevention (CDC) of rifapentine (PRIFTIN®) shortages. On March 25, 2020, the U.S. Food and Drug Administration (FDA) announced that rifapentine was on allocation, with intermittent supply availability, because of increased demand. Allocation typically means that the manufacturer (Sanofi-Aventis) distributes the drug in volumes proportionate to the buying history of its current customers. We do not know when rifapentine supplies will be restored to meet demand.

In June 2020, Sanofi-Aventis alerted the CDC Division of Tuberculosis Elimination, and other stakeholders worldwide about a newly detected impurity of rifapentine. This impurity is a nitrosamine and a potential carcinogen. The company is investigating the source of their impurity and any safety implications have been communicated with the FDA. As a precautionary measure, Sanofi-Aventis has paused the release of rifapentine from its production sites, which is further affecting the availability of the drug in the United States. At this time, neither the FDA or Sanofi-Aventis has requested a recall of the rifapentine supply that has already been distributed. Additionally, neither the FDA nor Sanofi-Aventis have recommended that patients presently taking rifapentine as part of their LTBI treatment discontinue their regimen. If a clinician or a patient prefers to discontinue a rifapentine-based regimen, LTBI treatment can be re-started with an alternative regimen, or it can be completed with a proportionate duration of an alternative regimen.

Rifapentine is primarily used, with isoniazid, in the weekly 12-dose regimen (3HP) for treating latent tuberculosis infection (LTBI) for preventing tuberculosis (TB). Of the three regimens that are recommended as preferred in the February 2020 treatment guidelines from NTCA and CDC, 3HP is the only one that has an intermittent dose schedule for facilitating directly observed therapy (DOT) including electronic/remote DOT. During this shortage, we suggest that the 3HP regimen be reserved for patients or settings when DOT is the local standard of practice. The regimen should be started only if enough medication is available for completion.

<u>Click here</u> to be re-directed to the FDA's webpage that monitors current and resolved drug shortages. Please feel free to contact our program if you have and questions regarding concerns of this current shortage



Maria Lasley, RN, BSN, MA, MBA TB Nurse Consultant maria.lasley@ky.gov



What does the COVID-19 Pandemic mean for TB?

COVID-19 Coronavirus and Tuberculosis: We Need A Damage Control Plan by Madhukar Pai and published by Forbes is an article that discusses the impact of the COVID-19 pandemic on tuberculosis (TB) prevention, control, and treatment efforts around the world and what the long-term effects could be.

We found this article to be pertinent to our local TB partners, as many of you have been pulled to as-

COVID-19 Coronavirus And Tuberculosis: We Need A Damage Control Plan



Madhukar Pai Contributor ①

Healthcare

I write about global health, infectious diseases, and equity

Hold Ctrl + click on the image <u>above</u> to read the full article online.

sist with the COVID-19 response efforts. This is because, as discussed in the article, "control of COVID-19 can benefit from the work TB programs have done over the years [including] infection control diagnosis, contact tracing, and isolation".

However, the article warns that TB should not be completely forgotten about be-

cause this could "damage the very fragile gain we have [made] in TB", therefore we "must ensure care for people is not interrupted".

However, the article acknowledges that there will be several acute and long-term challenges for TB control through this pandemic. Acutely, programs are having to divert experienced staff while continuing to manage patient care and administer directly observed therapy and deal with the extreme shortage of personal protective equipment. On a large scale, this article also discusses potential long-term impacts, including the diversion of funding for TB, and cutting of future TB expenditures due to massive worldwide economic losses. Addi-



<u>Above</u>: Dr. David Ashkin, Medical Consultant from the Southeastern TB Controllers Network (SNTC) is featured in the article reviewing a chest x-ray.

tionally, impacts on scientific research could significantly delay the development and implementation of new clinical practices, treatment regiments, and vaccines.

While the COVID-19 pandemic will undoubtedly pose a significant challenge to TB programs all around the world, the article describes a proactive approach to "mitigate the damage". We recommend reading this article in order to learn more about how COVID-19 is impacting TB control around the world and how your program might be able to take a more proactive approach to mitigate the effects on your program and staff. **Remember**—we are all in this together! We encourage you all to contact us if you have programmatic questions, or other concerns during this time

Source: Madhukar P. COVID-19 coronavirus and tuberculosis: we need a damage control plan. (March 17, 2020). Forbee.com: Healthcare. https://www.forbes.com/sites/madhukarpai/2020/03/17/covid-19-and-tuberculosis-we-need-a-damage-control-plan/#65cd7af8295c

Comparing COVID-19 and Tuberculosis (TB)

Given the ongoing COVID-19 pandemic, it is reasonable to assume the providers might immediately suspect that patients who present with respiratory symptoms, pre-existing immunocompromising conditions, and/or older individuals have COVID-19. However, these are also signs/symptoms and common risk factors associated with TB. It is important to continue evaluating for TB to ensure that an active case is not missed, as these individuals could expose other at-risk patients, particularly those infected with COVID-19.

The graphic below is intended to highlight some of the differences between TB and COVID-19 from characteristics of the pathogens, signs and symptoms, risk factors, and treatment:

Comparing Clinical and Epidemiologial Features of Tuberculosis and COVID-19			
	Tuberculosis	COVID-19	
How is it transmitted?	Airborne Spread	Droplet Spread	
What are the signs/symptoms?	 Cough Fever Weight loss Loss of appetite Night sweats Fatigue These symptoms typically appear gradually over several weeks and will persist if not treated 	 Persistent cough High fever Difficulty breathing/shortness of air Fatigue Nausea or vomiting Diarrhea These symptoms usually appear quickly and disappear after about seven days 	
How is it diagnosed?	Sputum and/or other specimens are tested for <i>M. tuberculosis</i> complex, both rapid-PCR testing and culture testing are done	Most commonly nasal swabs are collected for SARS-CoV-2 PCR testing	
How infectious is it?	Between 1-4 people can be infected per infectious TB case	Currently, it is estimated that ~2.2 people can be infected per infectious COVID-19 case	
What are effective prevention measures?	 Preventative therapy for those who are known contacts or are found to have latent TB infection (LTBI) Good respiratory hygiene measures 	 Social distancing Good respiratory hygiene measures Handwashing with soap and water for at least 20 seconds 	
What is the treatment?	Antibiotics – the standard 4-drug regimen for pan-sensitive TB, or alternative regimens for drug-resistant TB	With no specific drug currently available, supportive treatment is all that is currently available	
Is there is a vaccine?	The bacilli Calmette-Guerin (BCG) vaccine can provide some protection, specifically for children	None currently available	

Sources: The Union. Frequently ask questions: COVID-19 and tuberculosis. (March 25, 2020). https://www.theunion.org/news-centre/covid-19/body/2020_03_25_FAQ-Version-1-English-2.pdi
The Truth about TB. Coronavirus (COVID-19) and TB Q&A (March 20, 2020). https://www.thetruthabouttb.org/coronavirus/

Additional Readings on Tuberculosis during the COVID-19 Pandemic

COVID-19 Could Turn Back Clock on TB Elimination by Years

— Progress could slip substantially against the world's "forgotten" respiratory disease

by Molly Walker, Associate Editor, MedPage Today May 6, 2020



Hold Ctrl + click on the image <u>above</u> to read the full article online.

Source: Walker, M. COVID-19 could turn back clock on TB elimination by years—progress could slip substantially against the world's "forgotten" respiratory disease. (May 6, 2020). Medpagetoday.com: Infectious Disease, COVID-19. https://www.medpagetoday.com/infectiousdisease/covid19/86341



Tuberculosis and Public Health Emergencies

Hold Ctrl + click on the title <u>above</u> to read the full article online.

Source: Centers for Disease Control and Prevention. Tuberculosis and public health emergencies. (March 13, 2020). CDC.gov: Tuberculosis. https://www.cdc.gov/tb/education/public-health-emergencies.htm

Tuberculosis Reporting during the COVID-19 Pandemic

Reporting TB Suspects

During the COVID-19 pandemic, it is vital to continue to report TB suspects. The Centers for Disease Control and Prevention (CDC) defines a suspected case of TB as a person currently under TB disease evaluation for whom there is a high suspect for active TB. High suspicion for active TB can be based on risk factors, including: known contact with a person with active TB, showing signs/symptoms consistent with TB, or reporting other high risk factors.

- For medical providers and other staff in hospitals and healthcare facilities, please be sure to report any TB suspects you are evaluating to the **local health department** where the **patient resides** within 1 business day. Remember, this reporting is required per the Kentucky Regulation 902 KAR 2:020.
- For local health departments, please notify the state program of any new suspects or confirmed cases and enter them into NEDSS as soon as possible. Please remember that, while reporting by phone is the preferred method, we understand that our staff may not be as quickly accessible during this time due to irregular schedules, and assisting with the COVID-19 response. As a result, please reach out to our team via email—as we will be checking this regularly, whether we are in the office or telecommuting—and we will be sure to follow-up as soon as possible.

We thank you for your continued partnership in reporting TB suspects in a timely manner during this challenging time.

Electronic Disease Notification (EDN)—B0/B1/B2 Notifications

As the COVID-19 pandemic continues, travel—including arrival of immigrants and refugees—into the United States is becoming very limited. However, our program is continuing to receive some notifications about new arrivals. With this in mind, we wanted to notify everyone that we are continuing to monitor our Kentucky arrivals and their examination requirements are still in place (i.e. examinations must be initiated with 30 days of notification, and completed within 120 days of notification). For those jurisdictions that do not have direct access to the EDN system, the state program will continue to send your notifications and supporting documentation to you via email. Please remember that the TB Follow-up Worksheet should be filled out completely and returned to the state program within 30 days of your notification to provide information on the status of your case.

National Electronic Disease Surveillance System (NEDSS) Issues

As you might have noticed, NEDSS has been operating slowly and going down daily since the COVID-19 response began. This is due to the overwhelming number of electronic laboratory results (ELRs) being received daily and the number of *open* investigations in the "Open Investigations" queue. In order to assist with this issue, the best thing that can be done is to close out any *open* disease investigations that have been completed. This is most pertinent for more COVID-19 investigations and acute conditions, but closing out any confirmed cases of TB that has completed treatment or TB suspects that have been ruled out will also help. As a reminder, when you *close* a case or suspect, it does not delete the investigation, it only removes it from the "Open Investigations" queue. These investigations can still be looked up in NEDSS for review later. You can even continue to enter data which will be submitted to CDC and be reflected in any reports pulled from the NEDSS based system. Ultimately, *closing* these *open* case investigation will help NEDSS operate better, quicker, and help prevent down time.

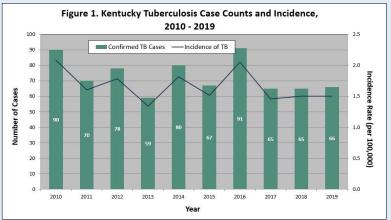
Epidemiology Editorial

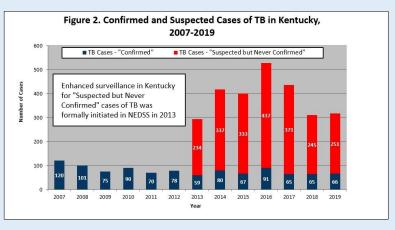
The Epidemiology of Tuberculosis (TB) in Kentucky, 2019

Due to the ongoing COVID-19 response, the Kentucky TB Program had to postpone the 2020 TB Update for Physicians and Clinicians originally planed for May 2020. This event typically provides an opportunity to present our data submitted to the Centers for Disease Control (CDC) each spring and findings from the previous year's confirmed cases of TB. While a formal, in-depth presentation has been currently delayed, we still wanted to provide a brief epidemiological update in this edition of *The DOT* and present key points from the 2019 preliminary data*.

In 2019, Kentucky counted 66 confirmed cases of TB at an incidence rate of 1.5 per 100,000. These data are closely in line with the trend observed over the last three years; 2017 had 65 cases (1.5 per 100,000), and 2018 had 65 cases (1.5 per 100,000). Kentucky's five year average of TB cases is 70.8 cases per year. This average is slightly higher due to the unusually high number of confirmed cases counted in 2016 at 91 cases. (Figure 1)

Kentucky also counted 251 suspected cases of TB in 2019, that were ruled-out or never confirmed. This number of suspects matches closely to the number counted in 2018, 245 suspects. As is illustrated in Figure 2, the number of suspects has decreased significantly over the past two years when compared to the previous 4 years (2013-2016). This is due to an increase in the availability of the TB GeneXpert polymerase chain reaction (PCR) test and a decrease in confirmed active cases (i.e. in 2016, 91 cases lead to more contact tracing and identification of more TB suspects).

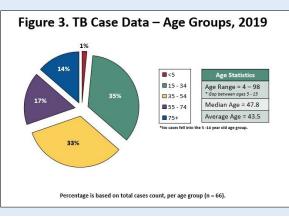


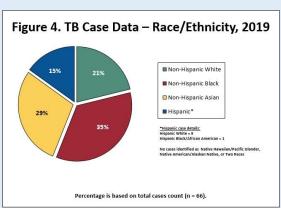


Kentucky's TB case count in 2019 presented demographic changes not seen previously (Figures 3-4). Cases are becoming younger and more diverse. The largest proportion of TB cases fell between 15-34 years of age (35%) with the average and median age being 43.5 and 47.8, respectively. Looking at race and ethnici-

ty, the largest proportion of cases were identified as being non- Hispanic/Latinx Black/African Americans (35%), followed by non-Hispanic/Latinx Asians (29%), and non-

Hispanic/Latinx

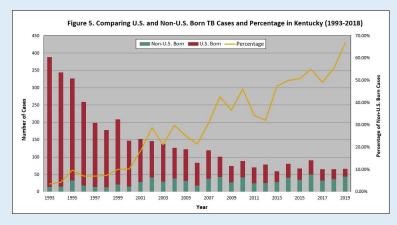




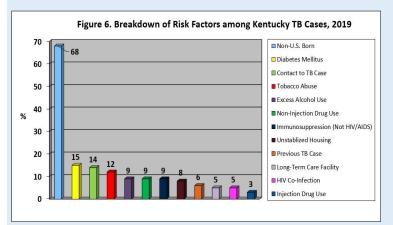
Epidemiology Editorial

whites (21%). Non-Hispanic/Latinx whites historically have made up the largest proportion of TB cases when looking at race and ethnicity.

Another demographic change observed is the proportion of non-U.S. born TB cases seen in Kentucky (Figure 5). Historically, Kentucky has not seen a significantly large proportion of non-U.S. born cases, differing from what is observed in most states and nationally. However, Kentucky has recently seen the proportion of non-U.S. born cases of TB hit greater than 50%, with



an all time high of 55% in both 2016 and 2018. In 2019, we have now seen a new all time high as the proportion as 68% of confirmed TB cases counted in Kentucky were non-U.S. born. Further, these cases represent



22 different countries making them the most diverse group of non-U.S. born TB cases in Kentucky.

Looking at risk factors among our 2019 confirmed cases of TB, there was not much of a change from what is seen typically (Figure 6). The most common risk factor continues to be non-U.S. born (68%), followed by diabetes (15%), being a known contact to a confirmed case (14%), and smoking and tobacco use (12%). Other common risk factors reported include substance abuse (i.e. injection and non-injection drug use, excess alcohol use), experiencing unstabilized housing, resi-

dents of long-term care facilities, and those who are immunosuppressed (not HIV/AIDS).

We would like to thank all of our local health department staff, including TB coordinators, TB nurses and case managers, and surveillance staff/epidemiologists for their hard work and dedication to collecting and reporting high-quality, timely data. These data allows us to analyze and accurately report the current and changing epidemiology of TB in Kentucky. It is vital that we are able to tack and evaluate these type of epidemiological changes in order to provide updated information, guidance, and resources to ensure that they are appropriate for what is being observed throughout the state. While it is our hope to present a more formal and thorough presentation of all our data from 2019, we hope that this information will provide some helpful insight until then.

Charles H. Rhea, MPH Epidemiologist I charles.rhea@ky.gov



^{*}All TB-related data and information is considered preliminary for two years while all final laboratory procedures are completed and cases continue and end their treatment.



Upcoming Trainings and Events

Update to Training and Events Schedules

Due to the ongoing COVID-19 response, the National Tuberculosis Controllers Association (NTCA) has cancelled its annual conference and the Kentucky TB Program has had to reschedule our Spring TB 101 Orientation and annual TB Update for Physicians and Clinicians. Recently, our Centers of Excellence announced that many upcoming trainings will be held virtually, which we will share more details on as they become available. It is our hope that we will be able to re-schedule these events later in the year. Please watch for future updates via email on our schedule of events.

TBD Spring TB 101 Orientation – Frankfort, KY

The Kentucky TB Program presents a 2-day course for new local health department personnel. Pre-requisites required. Please contact the Kentucky TB Program for more information.

TBD Kentucky's TB Update for Physicians and Clinicians—TBA

Plan to join the Kentucky TB Program and SNTC as they present an update on TB for Kentucky's physicians and clinicians.

TBD Fall TB 101 Orientation – Frankfort, KY

The Kentucky TB Program presents a 2-day course for new local health department personnel. Pre-requisites required. Please contact the Kentucky TB Program for more information.

See the following pages for additional education opportunities and resources:

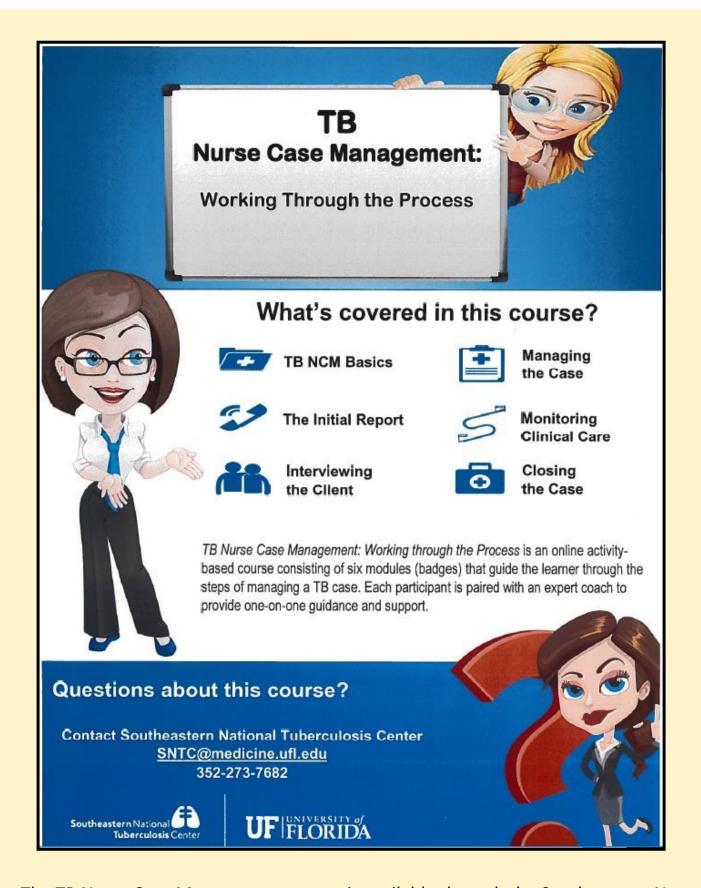
- TB Nurse Case Management: Working Through the Process
- Find TB Resources
- Patient Fact Sheet Series—Translated TB Information
- A Clinician's Guide to the TB Laboratory
- Cultural Competency and Tuberculosis Control—Country Guides

For education and training questions, please contact

Heather Cox, Training and Outreach Coordinator

heather.cox@ky.gov or (502) 564-4276 ext. 4294

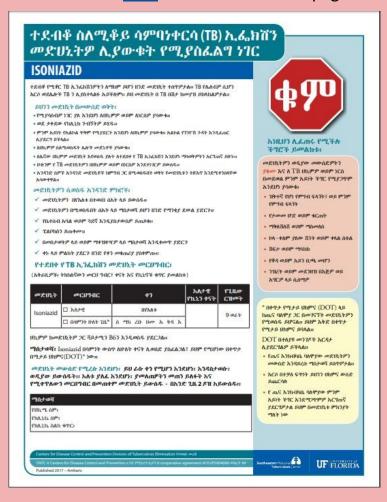




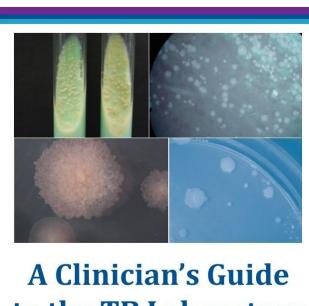
The TB Nurse Case Management course is available through the Southeastern National TB Controller's Network. Click here to contact them for more information.



The Centers for Disease Control and Prevention has developed an online search engine called "Find TB Resources". This search engine identified resources from across the internet (based on keyword, title, author, publisher, etc.) on any TB-related topic you are interested in. Click here for their online webpage where you can explore this resource.



Translated TB patient fact sheets are now available through the Southeastern National TB Controller's Network. Click here for their online webpage where you can find this product.



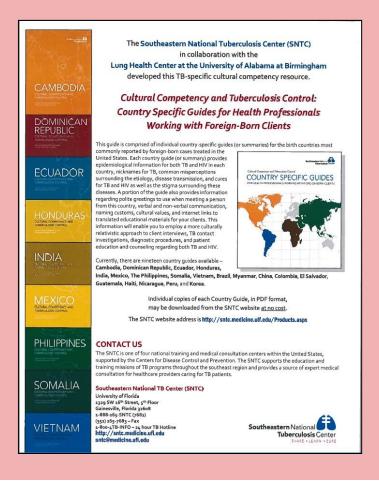
to the TB Laboratory

HEARTLAND

EXCELLENCE · EXPERTISE · INNOVATION

Click here for the Clinician's Guide to the TB Laboratory resource on the Heartland National TB Center website. This resource provides basic information on the use of public health and clinical laboratories in the diagnosis and monitoring of patients with TB

Cultural Competency guides are now available through the Southeastern National TB Controller's Network. These guides support the provider-foreignborn client relationship by giving country-specific background information, epidemiological data, common misperceptions and beliefs about TB and HIV/ AIDS. Click here for their online webpage where you can find these products.





Contact Us

Emily Anderson, RN, BSN

TB Controller/Program Manager (502) 564-4276 ext. 4298 EmilyA.Anderson@ky.gov

Maria Lasley, RN, BSN, MA, MBA

Nurse Consultant (502) 564-4276 ext. 4292 maria.lasley@ky.gov

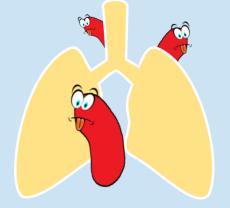
Charles H. Rhea, MPH

Epidemiologist I (502) 564-4276 ext. 4293 charles.rhea@ky.gov

Heather Cox

Administrative Specialist III (502) 564-4276 ext. 4294 heather.cox@ky.gov

Get the BUGS before



you give the DRUGS!